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Optimized “Heat-Module” linked to climate service data and individual characteristics

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Introduction The climate is changing and more and more extreme weather events, like cold spells and heat waves, are expected to occur in the near future. The impact of these events is visible in increased morbidity and mortality rates. Individualized and timely advice on appropriate actions in thermal climate stress may reduce morbidity and mortality among vulnerable populations and safeguard exposed workers by supporting decision-making at individual and organizational levels. In the ClimApp project we aim to make such a tool, based on climatic data input, data from the user, and expertise laid down in two current ISO standards: Wet Bulb Globe Temperature (WBGT) (ISO 7243) and Predicted Heat Strain (PHS) (ISO 7933).

Methods The WBGT and PHS are commonly used to assess heat stress and strain in hot environments. The present talk will provide an overview of these two models together with the (dis)advantages in usage for different populations like vulnerable people or workers. Furthermore, it will be explained how these models may be used in a mobile application like ClimApp to give personalized advice.

Expected results and conclusion Environmental heat stress indices and human thermal models like the WBGT and PHS are helpful tools in developing an advanced mobile climate application like ClimApp to give individualized and timely advice to improve decision-making for better adaptation strategies when facing thermal climate challenges.